

WHAT IS CLAIMED IS:

1. A foam, comprising a blend of
(a) from 0.1 to 4.9 weight percent ethylene/styrene interpolymers; and
5 (b) from 95.1 to 99.9 weight percent polyethylene homopolymer or
copolymer, said weight percentages being based on the total amount of (a) and
(b) in the blend.
2. The foam of claim 1, wherein the ethylene/styrene interpolymers are present
10 in the blend at a weight percentage ranging from 1 to 4 and the polyethylene is
present in the blend at a weight percentage ranging from 96 to 99.
3. The foam of claim 1, wherein the foam has an open-cell content of less
than 20 volume percent.
- 15 4. The foam of claim 3, wherein the foam has an open-cell content of less
than 15 volume percent.
5. The foam of claim 1, wherein the foam is in the form of a sheet having a
20 thickness ranging from about 0.015 to about 5 inches.
6. The foam of claim 1, wherein the foam has a density ranging from about
0.5 to about 15 pounds/cubic foot.
- 25 7. The foam of claim 1, wherein the ethylene/styrene interpolymers comprises
a styrene component ranging from about 20 to about 80 weight percent.
8. The foam of claim 1, wherein said polyethylene homopolymer or
copolymer comprises at least one material selected from low density
30 polyethylene, high density polyethylene, and ethylene/alpha-olefin copolymer.

9. A method for making a foam, comprising

(a) blending

(1) from 0.1 to 4.9 weight percent ethylene/styrene interpolymers;

and

(2) from 95.1 to 99.9 weight percent polyethylene homopolymer

or copolymer, said weight percentages being based on the total amount of

(1) and (2) in the blend;

(b) mixing a blowing agent with the blend of step (a); and

(c) causing the blowing agent to expand within the mixture of step (b),

thereby forming a foam.

10. The method of claim 9, wherein the blowing agent comprises a physical blowing agent.

11. The method of claim 9, wherein the ethylene/styrene interpolymers are present in the blend at a weight percentage ranging from 1 to 4 and the polyethylene is present in the blend at a weight percentage ranging from 96 to 99.

12. The method of claim 9, wherein the ethylene/styrene interpolymers are present in the blend at a weight percentage ranging from 1 to 4 and the polyethylene is present in the blend at a weight percentage ranging from 96 to 99.

13. The method of claim 12, wherein the foam has an open-cell content of less than 20 volume percent.

14. The method of claim 9, wherein the foam is in the form of a sheet having a thickness ranging from about 0.015 to about 5 inches.

15. The method of claim 9, wherein the foam has a density ranging from about 0.5 to about 15 pounds/cubic foot.

5 16. The method of claim 9, wherein the ethylene/styrene interpolymers comprises a styrene component ranging from about 20 to about 80 weight percent.

10 17. The method of claim 9, wherein said polyethylene homopolymer or copolymer comprises at least one material selected from low density polyethylene, high density polyethylene, and ethylene/alpha-olefin copolymer.